



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|-----------------------|------------------|
| 10/814,081 | 03/31/2004 | Wu Chou | 503038-A-01-US (Chou) | 5517 |

7590 04/08/2008
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560

| |
|----------|
| EXAMINER |
|----------|

AZAD, ABUL K

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2626

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

04/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/814,081 | CHOU ET AL. | |
| | Examiner | Art Unit | |
| | ABUL K. AZAD | 2626 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the communication filed on January 10, 2008.
2. Claims 1-18 are pending in this action. Claims 1, 5-10, 12, 15 and 18 have been amended.
3. The applicant's arguments with respect to claims 1-18 have been fully considered but they are not deemed to be persuasive. For examiner's response to the applicant's arguments or comments, see the detailed discussion in the Response to the Arguments section.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Segond et al. (6,405,162).

As per claim 1, Segond teaches, "a method of processing a communication in a communication system", the method comprising the steps of:

"generating a plurality of terms by combining at least one word and at least word class" (Fig. 1);

"identifying a plurality of words contained within the communication" (Abstract);

“and processing the plurality of words utilizing a joint classifier configured to determine at least one category communication based on application of the plurality of terms to the plurality of words without considering whether a given one of the plurality of terms is a word or a word class” (col. 11, lines 4-18).

As per claim 2, Second teaches, “wherein the joint classifier is implemented at least in part in a processor-based device of the communication system” (Section E. Miscellaneous).

As per claim 3, Second teaches, “wherein a natural language call routing element of the switch routes the communication to a particular one of a plurality of destination terminals of the system based on the determined category” (section D. Application).

As per claim 4, Second teaches, “wherein an automatic word class clustering algorithm is utilized to generate the word classes from at least one training corpus” (col. 2, line 57 to col. 3, line 10).

As per claim 5, Second teaches, “wherein one or more of the words and word classes utilized to generate the plurality of terms are selected using information gain based term selection” (col. 3, lines 1-30).

As per claim 6, Second teaches, “wherein the information gain based term selection determines an information gain value for each of the plurality of terms, the information gain value being indicative of entropy variations over a plurality of possible categories, and being determined as a function of a perplexity computation for an associated classification task” (col. 3, lines 1-30).

As per claim 7, Segoned teaches, “wherein the plurality of terms is generating by appending a class corpus to a word corpus” (col. 2, line 57 to col. 3, line 10).

As per claim 8, Second teaches, “wherein plurality of terms is generated by joining sets of multiple words with corresponding sets of word classes” (col. 11, lines 4-18).

As per claim 9, Second teaches, “wherein the plurality of terms is generated by interleaving individual words with their corresponding word classes” (col. 11, lines 4-18).

As per claim 10, Second teaches, “A method of processing a communication in a communication system”, the method comprising the steps of:

“identifying a plurality of words contained within the communication” (Abstract);
and

“processing the plurality of words utilizing a joint classifier configured to determine at least one category for the plurality of words based on application of a combination of word information and word class information to the plurality of words” (col. 11, lines 4-18);

“wherein the combination of word information and word class information comprises at least one term-category matrix characterizing words and word classes selected using information gain based term selection” (col. 11, lines 33-49).

As per claim 11, Segoned teaches, “wherein a cell i, j of the term-category matrix comprises information indicative of a relationship involving an i -th selected term and a_j -th category” (col. 11, lines 33-49).

As per claim 12, Segoned further teaches, “wherein the information gain based term selection calculates information gain values for each of a plurality of terms, a given one of the terms comprising a word or a word class, sorts the terms by their information gain values in a descending order, sets a threshold as the information gain value corresponding to a specified percentile, and selects the terms having an information gain value greater than or equal to the threshold” (col. 11, line 38 to col. 12, line 17).

As per claim 13, Segoned teaches, “wherein the selected terms are processed to form a term-category matrix utilizable by the joint classifier in determining one or more categories for the plurality of words” (col. 11, lines 33-37).

As per claim 14, Segond teaches, “wherein the joint classifier comprises a joint latent semantic index classifier” (col. 11, lines 4-18).

As per claims 15-18, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 1-9 and 14.

Response to Arguments

6. The applicant argues that Segond fails to teach or suggest to determining at least one of category for the communication.

The examiner respectfully disagrees with the applicant’s assertion because Segond teaches one of category for the communication at col. 12, lines 19-55, here different type of natural language communication is used.

7. In response to applicant’s arguments that the alleged anticipatory prior art is nonanalogous art’ or teaches away from the invention’ or is not recognized as solving

Art Unit: 2626

the problem solved by the claimed invention, [are] not germane' to a rejection under section 102. *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424 (Cl. Ct. 1986) (quoting *In re Self*, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)). See also *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003) (The question of whether a reference is analogous art is not relevant to whether that reference anticipates. A reference may be directed to an entirely different problem than the one addressed by the inventor, or may be from an entirely different field of endeavor than that of the claimed invention, yet the reference is still anticipatory if it explicitly or inherently discloses every limitation recited in the claims.).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Patric Edouard**, can be reached at **(571) 272-7603**.

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ABUL K. AZAD/

April 7, 2008

Abul K. Azad
Primary Examiner
Art Unit 2626